

AMENDMENTS TO THE CLAIMS

Claim 1 (Original) A nanosize heater-mounted nozzle comprising:
a nozzle for locally supplying a source gas toward a substrate; and
a nanosize heater for heating the source gas, located in the vicinity of an opening of the nozzle.

Claim 2 (Original) The nanosize heater-mounted nozzle according to Claim 1, wherein the nanosize heater is composed of carbon nanotube.

Claim 3 (Currently Amended) The nanosize heater-mounted nozzle according to Claim 1-~~or 2~~, wherein the nozzle is formed of an electrically insulating material, and a pair of electrodes is located on a side face of the nozzle, and the nanosize heater is connected between the electrodes so as to pass over the opening of the nozzle.

Claim 4 (Original) The nanosize heater-mounted nozzle according to Claim 3, wherein the nozzle is formed of quartz or heat-resistant glass.

Claim 5 (Original) The nanosize heater-mounted nozzle according to Claim 3, wherein the electrodes are formed of a material having a melting point of 1,700 degree-C or higher.

Claim 6 (Currently Amended) A method for forming a micro thin film including steps of:

positioning the nanosize heater-mounted nozzle, according to Claim one of Claims 1 to 5, closely to a surface of a substrate;
locally supplying a source gas toward the substrate through the nanosize heater-mounted nozzle; and
heating the source gas around an opening of the nozzle while energizing the nanosize heater.

Claim 7 (Original) A method for manufacturing a nanosize heater-mounted nozzle including steps of:

partially heating a tube formed of an electrically insulating material to shape a tapered nozzle by drawing;

forming a pair of electrodes on a side face of the nozzle; and

connecting a nanosize heater between the electrodes so as to pass over an opening of the nozzle.

Claim 8 (Original) The method for manufacturing a nanosize heater-mounted nozzle, according to Claim 7, further including a step of evaporating a conductive portion between the electrodes by supplying a current between the electrodes, after forming the pair of electrodes on the side face of the nozzle.

Claim 9 (Original) The method for manufacturing a nanosize heater-mounted nozzle, according to Claim 7, further including a step of irradiating with an electron beam the portion connected between each of the electrodes and the nanosize heater, after connecting the nanosize heater between the electrodes.